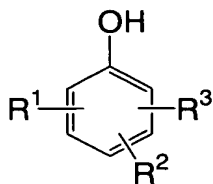


WHAT IS CLAIMED IS:

1. A positive planographic printing plate precursor comprising a hydrophilic support, and a lower layer and an image recording layer disposed on the hydrophilic support, wherein:  
the lower layer includes a water-insoluble and alkali-soluble resin,  
and  
the image recording layer includes a novolak type phenolic resin containing phenol as a structural unit thereof and a light-to-heat conversion agent, and exhibits increased solubility in an alkaline aqueous solution when exposed to an infrared laser.
2. A planographic printing plate precursor according to claim 1, wherein the novolak type phenolic resin contains phenol as a structural unit thereof in a range of from 20 to 90% by mole.
3. A planographic printing plate precursor according to claim 1, wherein the novolak type phenolic resin is a resin obtained by condensing of phenol and a substituted phenol represented by the following general formula (I) with an aldehyde:



General formula (I)

wherein R<sup>1</sup> and R<sup>2</sup> each independently represent a hydrogen atom, an alkyl group or a halogen atom; R<sup>3</sup> represents an alkyl group or

cycloalkyl group having 3 to 6 carbon atoms.

4. A planographic printing plate precursor according to claim 3, wherein a phenol content in monomers constituting the resin obtained by condensing of phenol and a substituted phenol represented by general formula (I) with an aldehyde is in a range of from 21 to 90% by mole.

5. A planographic printing plate precursor according to claim 1, wherein the novolak type phenolic resin is a resin obtained by condensing of phenol and at least one of cresol and xyleneol with an aldehyde.

6. A planographic printing plate precursor according to claim 5, wherein a phenol content in monomers constituting the resin obtained by condensing of phenol and at least one of cresol and xyleneol with an aldehyde is in a range of from 21 to 90% by mole.

7. A planographic printing plate precursor according to claim 5, wherein m-cresol content in monomers constituting the resin obtained by condensing of phenol and at least one of cresol and xyleneol with an aldehyde is 10% by mole or more.

8. A planographic printing plate precursor according to claim 1, wherein the image recording layer contains a novolak type phenolic resin other than the novolak type phenolic resin containing phenol as a structural unit thereof in an amount of from 5 to 50 % by weight based on a total solid content of all the phenolic type novolak resins.

9. A planographic printing plate precursor according to claim 1, wherein the image recording layer contains a water-insoluble and alkali-soluble resin other than the novolak type phenolic resins selected

from the group consisting of a polyamide resin, an epoxy resin, an acetal resin, an acrylic resin, a methacrylic resin, a styrene based resin and a urethane resin.

10. A planographic printing plate precursor according to claim 1, wherein the image recording layer contains a onium salt..

11 A planographic printing plate precursor according to claim 1, wherein the water-insoluble and alkali-soluble resin included in the lower layer is selected from the group consisting of a polyamide resin, an epoxy resin, an acetal resin, an acrylic resin, a methacrylic resin, a styrene based resin and a urethane resin.

12 A planographic printing plate precursor according to claim 1, wherein the image recording layer includes the novolak type phenolic resin and the lower layer includes an acrylic resin.

13 A planographic printing plate precursor according to claim 1, wherein the lower layer includes a light-to-heat conversion agent.